

Amendments to the Specifications

Please replace the paragraph beginning on page 2, line 35, with the following:

--The objective lens 40 includes a refractive lens 402 on one surface 403 of ~~[[to]]~~ which a layer 401 made of a different material from that of the refractive lens 402 is cemented. The objective lens 40 utilizes the difference in refractive index and dispersion between the refractive lens 402 and the layer 401. The objective lens 40 allows light beams having different wavelengths to be incident. The objective lens has spherical aberration characteristics in which a spherical aberration is changed to an underside when the wavelength of a luminous flux from a light source is shifted toward a long wavelength side. The spherical aberration displaced to the overside is cancelled by the spherical aberration displaced to the underside due to light having a longer wavelength. Thus, compatible recording/reproducing of optical disks having different thicknesses is made possible (see, for example, JP 2002-237078 A (pages 6-7, FIG. 1)).--

Please replace the paragraph beginning on page 17, line 35, with the following:

--The objective lens 144 is designed in such a manner that the blue light beam having the wavelength λ_1 is subjected to +2nd-order diffraction by the hologram 134 to receive a convex lens function, and then, the blue light beam is further condensed onto a recording surface 91 through a substrate thickness t_1 of the optical disk 9.--

Please replace the paragraph beginning on page 25, line 7, with the following:

--In FIGS. 5 and 6, the phase level difference 1442 is formed on the surface 1441 of the objective lens (refractive lens) 144. However, a phase level difference 1462 also may be formed on the substrate surface 1361 of a hologram 136 as shown in FIG. 7. An enlarged view of the phase level difference portion is shown in FIG. 8. FIG. 8 is the same as FIG. 6 in that the step of the phase level difference is set to be an integral multiple of the height h_a causing a difference in optical path length that is five times the wavelength with respect to blue light. The phase level difference according to the present embodiment may be added to an optical element or an optical lens such as an objective lens and a hologram, and a phase level difference itself may be formed as an independent optical element. This also applies to the following embodiment.--

Please replace the paragraph beginning on page 34, line 15, with the following:

--An optical disk player 121 shown in FIG. 17 includes the optical information apparatus 67 of Embodiment 6 and a converter 66 (e.g., a decoder) for converting an information signal obtained from the optical information apparatus 67 to an image. This configuration also can be used as a car navigation system. Furthermore, a display apparatus 120 such as a liquid crystal monitor also can be added.--

Please replace the paragraph beginning on page 34, line 36, with the following:

--It also is preferable that the converter 66 (decoder) for converting an information signal obtained from the optical information apparatus 67 to an image is provided. According to this configuration, a portion that has been recorded can be reproduced. The optical disk recorder 110 also may be provided with the output apparatus ~~[[61]]~~ 81 such as a cathode-ray tube, a liquid crystal display apparatus, or a printer for displaying information.--

Please replace the paragraph beginning on page 36, line 4, with the following:

--Furthermore, although an input apparatus is not shown in FIGS. 17 and 18, an input apparatus such as a keyboard 65, a touch panel, a mouse, a remote control apparatus, or the like may be provided. On the other hand, in Embodiments 7 to 10, an input apparatus may be optionally available, and only an input terminal may be provided.--